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**PROSPECTIVE U.S. POLICY ON
TECHNOLOGY AND ARMS TRANSFERS
TO SOUTH AMERICA**

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ABSTRACT:

PROSPECTIVE U.S. POLICY ON

TECHNOLOGY AND ARMS TRANSFERS TO SOUTH AMERICA

For decades, U.S. policy on nonproliferation controls and weapons exports to Argentina, Brazil, and Chile was built upon Cold War-era suspicions of the military governments in power in those countries. American concerns over the proliferation activities of governments and private firms and human rights abuses by the military regimes led to stringent bilateral controls on exports and security cooperation. Revelations surfacing in the wake of the transitions to civilian authority in these countries and of the Persian Gulf conflict proved these suspicions to have been correct.

The governments, societies, and economies of these countries have undergone a sea change during the 1990s, as U.S. policy has struggled to keep apace. U.S. interests now lie in incorporating these countries into the international nonproliferation regimes and converting their militaries into reliable partners in international peacekeeping. The United States should undertake a number of low-cost initiatives to help transform the region into a reliable security partner.

TABLE OF CONTENTS

INTRODUCTION	1
ORIGINS OF U.S. NONPROLIFERATION POLICY TOWARD THE REGION	2
U.S. NONPROLIFERATION POLICY IN THE 1990S	6
U.S. ARMS TRANSFER POLICY TOWARD THE REGION	8
EVOLUTION OF GOVERNMENTS IN THE REGION	11
PROLIFERATION-RELATED INDUSTRIES IN THE REGION	19
FUTURE DIRECTIONS FOR U.S. POLICY	22

INTRODUCTION

During much of the Cold War, the United States' policy toward technology transfer to the major countries of South America reflected a basic assumption that these countries were controlled by governments which might use such technology to produce weapons of mass destruction or the means to deliver them, or which might transfer such technology to other nations bent on similar efforts. This policy was complemented by tight limits on transfers of new weapons systems to the region, limits which reflected not only U.S. distrust of the external intentions of these governments but also concerns over internal abuses of human rights. The policy also reflected some U.S. concerns over tensions and rivalries between these military regimes. U.S. policy continued in this orientation through the 1980's, even as military governments in the region began to give way to civilian authorities and intraregional tensions eased.

This distrust of Argentina, Brazil, and Chile on the part of the United States was well-founded, resting in the beginning on these countries' refusal to adhere to international norms of nonproliferation such as the Nuclear Non-Proliferation Treaty (NPT) or the Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco). These suspicions were reinforced during the 1980's by the involvement of all three countries in an array of proliferation activities, ranging from Argentina's role in the Condor II missile program, to Brazil's space launch vehicle/missile program and military exports to Iraq, to Chile's Industrias Cardoen and its role in the arming of Iraq.

During the late 1980's and into the 1990's, the newly-installed civilian authorities in these countries began to assert more effective control over the military and civilian bureaucracies which had been engaged in proliferation activities and to bring to heel past abusers of human rights. At the same time, these governments also started to bring their countries into some of the international nonproliferation regimes. U.S. policy slowly took these changes into account, beginning in 1993 with support for Argentina's entry into the Missile Technology Control Regime (MTCR).

This paper will examine the changes in U.S. nonproliferation and technology transfer policies toward the region during the 1990's. It will provide recommendations for further changes to bring these countries more securely into the international nonproliferation community and to ease their transformation into responsible partners in international security issues in the post-Cold War world. To do so, the paper will look at the evolution of governments in the region during the 1980's and 1990's and the prospects that the positive political trends of recent years will continue. Finally, it will look at steps which governments in the region have taken to bring proliferation activities under control and postulate as to what the United States might do to encourage continued progress and to help these governments restructure their militaries for the coming century.

ORIGINS OF U.S. NONPROLIFERATION POLICY TOWARD THE REGION

U.S. nonproliferation policy toward Argentina, Brazil, and Chile was framed by the refusal of those countries to ratify the NPT or the Treaty of Tlatelolco. In the cases of

Argentina and Brazil, this refusal reflected efforts on the part of the military governments of the time either to develop nuclear weapons (Brazil) or at least to develop the capability to do so (Argentina). Both Brazil and Argentina also were attempting to develop ballistic missiles capable of delivering weapons of mass destruction. While Chile lacked the wherewithal to develop nuclear weapons, it refused to ratify the nonproliferation treaties so long as its regional rivals, especially Argentina, declined to do so.

Brazil: The evidence is clear that Brazil's development of a domestic nuclear power industry was accompanied by a parallel secret military program to develop a nuclear weapon. Brazilian interest in nuclear energy and weapons dated to the early 1950's, when then-President Getulio Vargas sent scientists to West Germany to work on equipment and procedures for enriching uranium. Although the U.S. sold Brazil a light water nuclear reactor in 1972, it did not provide reprocessing and enrichment technology as Brazil had signed neither the NPT nor the Treaty of Tlatelolco. Brazil then turned again to West Germany and signed a deal in 1975 for a reactor and reprocessing and enrichment technology. At that time, both the nuclear power and weapons bureaucracies were placed under the authority of the armed forces. While the West German equipment was subject to nuclear safeguards, a 1987 German government report noted that 20 percent of the Brazilian staff trained by West Germany subsequently left the safeguarded areas of Brazil's nuclear program for work in other facilities.

Brazil's nuclear weapons program was carried out by the National Atomic Energy Commission (CNEN), the three branches of the armed services, and the governmental Institute for Nuclear and Energy research (IPEN). This program, code-named Solimoes, continued through Brazil's return to civilian government in 1985. It was not until October 1990 that then-President Collor de Mello announced the existence of the heretofore secret project and his decision to terminate it. Collor de Mello later held a public ceremony in which he threw a symbolic shovel load of cement into a shaft which had been drilled at an Amazon military base for the planned testing of Brazil's first nuclear device.¹

Brazil's nuclear program was driven by rivalry with Argentina and followed a design similar to that of Argentina's nuclear program. Argentina had two parallel nuclear programs run by the National Atomic Energy Commission (CNEA) and headed by military officers. Like Brazil, Argentina strove to master the complete nuclear fuel cycle, including enrichment and reprocessing. The principal difference between the two programs was that Argentina's had a more diverse group of foreign suppliers, including Germany, Canada, the United States, and Switzerland.

Argentina: Argentina followed a nuclear development strategy designed to keep open these foreign lines of supply while not foreclosing the option of developing nuclear weapons. During the 1970's and 1980's, Argentina refused to ratify international treaties

¹ See David J. Myers, "Brazil," in Limiting Nuclear Proliferation, ed. Jed C. Snyder and Samuel F. Wells, Jr. (Cambridge: Harper & Row, 1985), pp. 117-142; Frank Barnaby, How Nuclear Weapons Spread, (London: Routledge, 1993), pp. 106-109; and Leonard S. Spector, Nuclear Ambitions, (Boulder: Westview Press, 1990), pp. 242-254.

under which it would have forsworn nuclear weapons but repeatedly made public declarations that its nuclear program was for peaceful purposes only. At the same time, Argentina focused on mastering the nuclear fuel cycle using natural uranium, the best source for producing weapons-grade plutonium. Argentina did not, however, move to develop a device itself.²

Argentina thus kept most of its supply lines open, especially to European suppliers. But both Brazil and Argentina ran afoul of the Nuclear Non-Proliferation Act of 1978 in the United States, which cut access to U.S. technology because neither country had full-scope nuclear safeguards in effect.

Chile: Chile entered into proliferation activities in the 1970's after it began developing a domestic arms industry in response to U.S. sanctions on arms exports. While Chile's primary producer was (and remains) a private company--Industrias Cardoen--the firm had close connections with the leadership of the military junta. Industrias Cardoen initially focused on supplying the demands of the Chilean military but quickly diversified into export markets. Cardoen soon supplied about half of the world market for cluster bombs and also branched out into components for weapons of mass destruction, such as fuses for Iraqi chemical weapons. Cardoen also was reported to have sought to supply nuclear technology and precursor chemicals for Iraqi chemical weapons.³

² See Barnaby, pp. 100-105; and Daniel Poneman, "Argentina," in Limiting Nuclear Proliferation, pp. 89-113.

³ William Burrows and Robert Windrem, Critical Mass (New York: Simon and Schuster, 1994), pp. 154-160.

U.S. nonproliferation policy thus was on firm ground in targeting these countries for bilateral and multilateral export controls. As noted above, U.S. nuclear technology exports to the region were restricted after 1978 by the provisions of the Nuclear Non-Proliferation Act. On the multilateral side, Argentina's Condor II missile program became one of the primary projects of concern when the Missile Technology Control Regime (MTCR) was formally announced in April 1987. The United States and the United Kingdom took the lead in pushing for this designation of the Condor II; the U.S. out of concern that the missile might be deployed in the Middle East and the U.K. out of concern that it might target the Falkland/Malvinas Islands.

The Bush Administration tightened further bilateral nonproliferation controls in August 1991 with the Enhanced Proliferation Control Initiative (EPCI), which targeted dual use components which might be destined for the development of missiles or weapons of mass destruction. Brazil was one of the seven countries named under the EPCI due to continuing concerns about Brazil's dual missile/SLV programs. U.S. exporters thus were required to examine more carefully all items, no matter how innocuous, which might be destined for Brazil's space program.

U.S. NONPROLIFERATION POLICY IN THE 1990's

U.S. nonproliferation policy toward Argentina, Brazil, and Chile has become more differentiated in recent years in line with the different pace of political and military reform

in each of the three countries. Argentina, which had advanced the most in terms of civilian control of the military and the termination of proliferation activities, was invited in March 1993 to become the first developing country to join the MTCR. Argentina also became the first country to join the MTCR which previously had been a priority target of the MTCR's activities. The U.S. played a leading role in determining the conditions for Argentina's entry and, since the MTCR operates by consensus, effectively held a veto over Argentine membership.

The Australia Group, the nonproliferation regime for combating the spread of chemical weapons, extended an invitation to Argentina to become a member in 1993. A common criterion for membership in both the MTCR and the Australia Group was the ability to maintain an effective export control regime. The U.S. was a prime supporter of Argentine membership in the MTCR and the Australia Group and entered into a series of discussions with Argentina to assist in setting up the regulatory and bureaucratic structures necessary to control strategic exports.

In 1995, Brazil also broke new ground in the criteria for membership in the MTCR by becoming the first developing country to join the MTCR while maintaining an active SLV program. Prior to September 1993, U.S. policy had been to oppose MTCR membership for developing countries with active missile or SLV programs. The revised U.S. policy allowed for U.S. support for such countries to join provided they forswore weapons of mass destruction and had an effective export control system. Brazil's passage

of export control legislation became the final hurdle for MTCR membership and it became a member, with U.S. support, in November 1995. The United States at the same time began taking the bureaucratic steps necessary to remove Brazil from the EPCI list.⁴

U.S. nonproliferation policy toward Chile has changed the least thus far in the 1990's. This lag in policy toward Chile reflects both the slower pace of change in Chile and a lack of priority given Chile's relatively lesser role in the international proliferation of weapons of mass destruction. U.S. global policy on the MTCR is to concentrate on gaining adherence and membership from those states which are the most significant producers of missile technology. Chile has not been included in this category. The United States has not undertaken discussions with Chile on setting up an effective export control regime, as it did with Argentina and Brazil.⁵

U.S. ARMS TRANSFER POLICY TOWARD THE REGION

U.S. policy on arms transfer to the region shared some of the same roots of its nonproliferation policy: distrust of the military regimes' intentions both externally and internally. The policy generally was consistent with that in effect for the rest of the world but featured some particularly restrictive twists. British sensitivities over arms transfers to Argentina following the Falklands/Malvinas War virtually dictated U.S. policy toward that country for almost a decade, while human rights concerns yielded particularly restrictive controls on all arms exports to Chile.

⁴ Interviews with U.S. Department of State officials, Washington, D.C., 1 December 1995 and 4 December 1995.

⁵ Ibid.

U.S. policy toward arms transfers around the world presently is governed by the conventional arms transfer policy announced on February 17, 1995. This policy seeks to advance five oft-times conflicting goals: continuing U.S. superiority in weapons technology, helping friends to defend themselves and improve their ability to operate with U.S. forces, promoting regional stability and preventing proliferation, promoting democracy and human rights, and assisting U.S. industry to meet long-term defense requirements.

The interplay between these goals determines what U.S. policy will be on transfers to a particular country or region. The new policy lists twelve specific criteria to take into account when considering a transfer. Most of the criteria stem from the goals listed above but they include as well the availability of comparable systems from other suppliers and the ability of the proposed recipient to support the requested system. Under the transfer policy, the United States is committed to supporting regional arms control and arms transparency arrangements and to working multilaterally with other major suppliers. At the same time, the United States has reserved the right to act unilaterally when necessary.⁶

Fighter Aircraft: In practice, however, transfers to the Southern Cone of the most advanced weapons systems--fighter aircraft--continue to be governed by a 1992 policy review on whether the United States should offer to sell F-16s to the region. The

⁶ See U.S., The White House, Fact Sheet on Conventional Arms Transfer Policy and Fact Sheet on Criteria for Decisionmaking on U.S. Arms Exports, 17 February 1995.

1992 study concluded that offering these aircraft could spark an arms race and had the potential to undermine the economic and political transformation then underway in the region. The study also measured the potential response by the UK were such an offer to be made to Argentina and, conversely, if such an offer were made to others in the region but not to Argentina. Finally, the study took into account the declining intra and extra-regional military threats to the region and the downward trend in national military budgets there.

The resultant policy is best described as one in which proposals are considered on a case-by-case basis with a presumption of denial. The U.S. has not authorized the provision of rough order of magnitude (ROM) or price and availability (P&A) data on F-16s nor has it approved the marketing of other advanced systems such as attack helicopters. During the time that this policy has been in effect, no F-16s or comparable aircraft have been sold into the region by the U.S. or other suppliers. At the same time, however, other suppliers such as Israel have been active in selling upgrades to F-5 aircraft already in the region and have been equipping aircraft for air-to-air refueling operations. Providing such technologies arguably could be as potentially destabilizing a strategic threat as would be F-16s, although such upgrades would have less of a fiscal impact on the governments involved.⁷

⁷ U.S., Department of Defense, South America Advanced Aircraft Sales Policy (draft); Interviews with U.S. Department of Defense officials 5 February 1996 and 7 February 1996.

In March 1996, Secretary of Defense William Perry's visit to the region and the biennial FIDAE air show in Santiago provided an opportunity for proponents of a more liberal transfer policy to make their case. While the policy did not change prior to the Secretary's visit, Perry noted during his trip that a review was underway and that he hoped "that the policies that come out will be more liberal than the ones today." The United States also gave approval for the first time for F-16s and Super Cobra attack helicopters to be exhibited at the FIDAE show.⁸

EVOLUTION OF GOVERNMENTS IN THE REGION

The return to civilian governments in these countries during the 1980's marked the beginning of a lengthy process of bringing military institutions under effective civilian authority. The process in each country has been an incremental one which continues to this day. The return to civilian authority in Argentina and Brazil coincided with a period of severe fiscal constraints as both countries strove to bring hyperinflationary pressures under control and create a mix of economic policies conducive to sustained economic development. The political and economic implosion of the Soviet Union in the late 1980's thoroughly discredited the socialist economic model and moved first Argentina and later Brazil away from non-aligned status and toward the developed OECD countries.

Economic reform in Chile was much further along when the transition to civilian authority began. The fiscal constraints upon military expenditures in Chile consequently

⁸ See "U.S. Firms Find Little Room in Latin American Market," *Defense News*, 18-24 March 1996, pp. 1, 27; and Press conference with Secretary of Defense William Perry, Santiago, Chile, 11 March 1996.

were less severe but, when viewed in the context of the acquisition of expensive weapons systems such as fighter aircraft, were exacerbated by the relatively small size of the Chilean economy.

In all three countries, the combination of fiscal constraints and the political need to extend authority over military institutional prerogatives encouraged the civilian authorities to pursue bilateral and multilateral confidence and security building measures (CSBMs) to reduce security tensions and lessen motivations for a build-up of military forces. The end result has been the creation of governments which can be much more reliable partners of the United States in combating the proliferation of weapons of mass destruction (WMD) and participating in international peacekeeping than would have been the case at any time in the past.

Argentina: The military junta's disastrous handling of the Falkland Islands conflict opened the door to a return to civilian government in Argentina in 1983. As President Raul Alfonsin struggled to deal with the aftermath of Argentina's "dirty war" and other aspects of the military's pervasive role in society, the assertion of control over the military's proliferation activities took a back seat. Indeed, the Alfonsin government issued secret decrees in 1985 and 1987 which approved the development of the Condor-II missile program with Iraq and Egypt and authorized the transfer of this missile technology to Iraq in exchange for Iraqi investment in the program.⁹

⁹ Burroughs and Windren, Critical Mass, p. 471.

President Carlos Menem took office six months early, in July 1989, in response to a public clamor that the government deal with the hyperinflation which was ravaging the Argentine economy and society. Menem's economic strategy was one of severe fiscal austerity coupled with the opening up of the Argentine economy to economic competition at home and abroad through privatization and reducing barriers to trade. Integral to this strategy was the improvement of relations with the developed countries, particularly the United States, to which Menem looked for financial support and foreign investment. Foreign Minister Di Tella's oft-quoted remark that Argentina sought "carnal relations" with the United States came to symbolize Argentina's quest for closer ties.

Menem's interest in economic stability, reduced military spending, and greater civilian control dovetailed well with U.S. interests in Argentina. During Menem's first four years in office, he was able to use U.S. pressures on non-proliferation to bring the Condor and nuclear programs under his control. Cuts in military spending were balanced to a degree by closer-U.S. Argentine military ties and equipment transfers and, domestically, by Menem's use of Presidential pardons to bring to an end prosecutions of military officials for "dirty war" activities.

Brazil: The transition to civilian rule in Brazil got off to a rocky start in 1985 with the untimely demise of President-elect Tancredo Neves and the assumption of the Presidential mantle by Jose Sarney, who lacked Neves' popular mandate. Brazil at the

time was a significant player in the international weapons market, trailing only Israel in the ranks of developing country exporters. The military government also had been carrying out an extensive, secret military nuclear program in parallel with its civilian nuclear power program.¹⁰

President Sarney publicly revealed the existence of the “parallel” military nuclear program late in 1987 when he announced a breakthrough in Brazil’s ability to enrich uranium. That same year, Argentina and Brazil began a gradual process of bilateral visits to each other’s nuclear facilities. When the new Brazilian constitution was adopted in 1988, the two nuclear programs officially were merged and the Brazilian Congress was given oversight authority, although there were at the time no effective mechanisms for exercising such oversight. Sarney’s lack of a popular mandate led him to rely heavily on the military for his authority to govern, and Brazil’s secret nuclear weapons program continued during the remainder of his administration. Brazil also remained a major exporter of conventional weapons until the economic and military setbacks of its major clients, Iraq and Libya, caused those exports to dry up in the late 1980’s.

Progress in Brazil toward civilian control of the military thus began later and proceeded more slowly than in Argentina, as the Brazilian Chief Executive began with a weaker base of authority. Presidents Sarney and Collor were able to build upon the steps taken in Argentina and to use that country’s nonproliferation advances and declines in

¹⁰ See Patrice Franko-Jones, The Brazilian Defense Industry (Boulder: Westview Press, 1992), p. 169; and Warren H. Donnelly, Argentina, Brazil, and Nuclear Proliferation (Washington: Congressional Research Service, 1990), pp. 6-7.

military expenditures to reassure the Brazilian military that it would not be leaving the country vulnerable to an Argentine strategic threat.

Chile: Chile's transformation from military to civilian rule was even later, and more delicate, than that of Brazil. When Patricio Aylwin was inaugurated as President in March 1990, General Pinochet stepped aside as President but retained his role, and significant influence, as chief of the armed forces. The Chilean military retained a set-aside fund for military equipment purchases and the new civilian government trod carefully on these and other military prerogatives. Carlos Cardoen and his Industrias Cardoen retained significant influence with the military even as Cardoen became embroiled in legal difficulties with U.S. Customs over his export activities. In the end, though, Aylwin was able to negotiate around these and other shoals and in 1995 turned over the reins of government to President-elect Frei, his democratically elected successor.

The Gulf War Watershed: The Persian Gulf war was in very different ways a watershed event for the evolving civilian governments in all three countries. For Argentina, the war was an opportunity for President Menem to demonstrate Argentina's newfound orientation toward the West and the United States by sending two frigates to join the coalition forces. To do so, Menem overruled objections from the Argentine navy and succeeded with what was seen in U.S. circles as a "clever and farsighted move," demonstrating effective civilian authority over the military. For Brazil, the war revealed the extensive cooperation between Brazil's military and defense industries, and Iraq.

While General Piva was the most notorious of Brazil's military collaborators with Iraq, he was by no means alone; twenty-one rocket engineers returned to Brazil from Iraq during the Desert Shield phase of the war. For Chile, the war revealed the extensive collaboration between Industrias Cardoen and Iraq, including assistance on both conventional weapons and weapons of mass destruction.¹¹

Building Confidence: As the Menem Administration moved in the early 1990's to curb Argentina's proliferation activities and cut military spending, it became interested in developing dialogues with other governments in the region on these issues and other confidence and security building measures (CSBMs). With Argentina's military expenditures falling rapidly, and its force structure shrinking, the Menem Administration was interested in encouraging similar restraint on the part of its neighbors. Getting such dialogues underway proved to be slow going however, even though other bilateral issues (e.g., nuclear safeguards with Brazil and boundary dispute arbitration with Chile) were advancing smartly. While continuing efforts to nurture interest on the part of Brazil and Chile, Argentina in early 1993 began a series of political/military talks with the United States on these issues and related topics such as export controls. These talks were augmented in November 1994 with the inauguration of a Bilateral Working Group

¹¹ See Interview with U.S. Department of Defense official 20 March 1996; Burroughs and Windren, Critical Mass, pp. 156-160; and Bruce W. Nelan, "Two Tales of Skulduggery," Time, October 22, 1990, pp. 44-45.

between the United States and Argentina, at the Secretary of Defense level, the first such group to be set up between the United States and a Latin American country.¹²

Argentina and the United States also worked through the Organization of American States (OAS) and the Summit of the Americas process to develop regional momentum on arms control and other CSBMs. In March 1994, Argentina hosted the first-ever OAS regional meeting on CSBMs, where representatives of 19 countries developed a list of CSBMs for countries in the region to consider undertaking. The Summit of the Americas, hosted by President Clinton in December 1994, endorsed further efforts to discuss how the region's armed forces could promote peace, cooperation, and security. U.S. Secretary of Defense Perry then hosted the hemisphere's defense ministers in July 1995, in a session in which they endorsed the widespread adoption of CSBMs and expanded civil-military dialogues. During this meeting, Argentine Defense Minister Camilion chaired a working group whose conclusions included a ringing endorsement of civilian authority over defense and security affairs, recognized the reality that defense budgets in the region would continue to decline, and endorsed the use of CSBMs to facilitate the restructuring and rationalization of armed forces in the region.¹³

¹² Interviews with U.S. Department of State officials, 1 and 4 December 1995; interview with U.S. Department of Defense official 7 February 1996; and U.S., Department of Defense, United States Security Strategy for the Americas, September 1995, p. 19.

¹³ See U.S., Arms Control and Disarmament Agency, Fact Sheet on OAS Conference on Confidence and Security Building Measures (CSBMs), November 8-10 1995, pp. 1-3 and U.S., Department of Defense, Defense Ministerial of the Americas, July 24-26 1995, pp. 5, 27-29.

Chile then hosted a follow-up OAS meeting on CSBMs in November 1995. The meeting concluded with the issuance of the Declaration of Santiago, which recommended a series of CSBMs on conventional weapons and other issues and linked progress on economic integration in the hemisphere with progress on regional security. Argentina and Chile also used the occasion to sign a bilateral agreement to hold annual consultations on security cooperation.¹⁴

At the end of 1995, therefore, the region presented a picture which was vastly different from that of fifteen, or even five, years ago. In addition to the progress which Southern Cone countries had been making on the economic front (a story of astounding success in Argentina and Chile, and progress toward stabilization in Brazil), the civilian-led governments were engaged in bilateral and multilateral dialogues on security issues covering conventional weapons and those of mass destruction. Military forces from Argentina, Brazil and Chile were cooperating in the Guarantor Observer Mission to patrol the disputed Peru-Ecuador border, in accordance with the four power guarantee of 1942, while Argentina and Uruguay each had around 1,000 troops participating in UN peacekeeping missions. Intraregional tensions between these traditional rivals were much reduced and prospects appeared bright for future progress in economic and security integration in the Southern Cone.

¹⁴ See U.S., ACDA, Fact Sheet, pp. 1-3 and Organization of American States, Regional Conference on Confidence and Security Building Measures, Declaration of Santiago on Confidence and Security Building Measures (OEA/SER.K/XXIX.2/COSEGRE/doc.18/95 rev.3), 27 November 1995.

PROLIFERATION-RELATED INDUSTRIES IN THE REGION

Argentina and Brazil have made substantial progress in bringing under control their industries--governmental and private sector--which had been involved in the proliferation of weapons of mass destruction. Both countries signed the full scope safeguards agreement with the IAEA and ABACC, the bilateral Argentine-Brazilian Accounting and Control Commission for nuclear materials. Argentine President Menem signed a decree in 1990 requiring safeguards on all nuclear exports, and Argentina followed through on this requirement in subsequent exports to Algeria and elsewhere. The three countries together in 1991 issued the Mendoza Declaration, forswearing production of chemical weapons. Argentina in 1991 terminated its Condor II program, a medium-range ballistic missile program developed which was under development with Iraq and Egypt. Many of the principal components of that missile program then were shipped to Spain in 1993 for disposal.

The history of the conventional weapons industries in the three countries shows that each took a separate path to development. The Argentine arms industry developed around a model of import substitution in which the public sector remained dominant. In the mid-1980s, Argentina's volume of defense production was the largest in Latin America yet its exports trailed those of both Brazil and Chile. Chile's industry began as an import substitution effort when the United States placed an arms embargo on Chile following the 1973 coup. While public sector firms were important in Chile in shipbuilding and armored vehicles, the industry eventually came to be dominated by the private firm Industrias

Cardoen. As the Chilean industry developed in the 1980's, it moved from import substitution to becoming an important exporter of munitions such as landmines, cluster bombs, and bomb fuses.¹⁵

Brazil's arms industry traces its heritage back to the 1964 military coup, after which the government put in place a policy to encourage private firms to work with governmental research institutes to develop high-tech industries. For example, Avibras, a private company specializing in rocket artillery, co-located with the governmental Aerospace Technical Center, CTA. Because Brazil faced few conventional threats in the region, its defense industry soon looked to export markets for its output of artillery, rockets, armored vehicles, and the like. As noted earlier, Brazil by the mid-1980s was the second largest arms exporter among developing countries. It also had developed a prominent small aircraft industry on the civilian side.

Both the Argentine and Brazilian industries fell upon hard times in the late 1980s and 1990s. Argentina's import substitution industry was hit hard by cuts in the military budget under Presidents Alfonsín and Menem. Brazil's export-oriented firms were devastated by the misfortunes of Iraq and Libya, their principal clients. Avibras, for example, saw its exports plunge from more than \$300 million in 1987 to virtually zero in 1989. Both Avibras and Engesa, Brazil's armored personnel carrier manufacturer, filed for bankruptcy protection in 1990. Embraer and Fabricas Militares, the aircraft

¹⁵ Jose O. Maldifassi and Pier A. Abetti, Defense Industries in Latin American Countries (Westport: Praeger Publishers, 1994), pp. 93-97, 226.

manufacturers of Brazil and Argentina respectively, were losers in the recent U.S. competition to provide a new generation of jet trainers (JPATS) and Embraer is struggling to cope with its \$800 million in debt.¹⁶

Chile's private sector oriented industry fared somewhat better despite Carlos Cardoen's personal difficulties with U.S. law. While Industrias Cardoen sold heavily to Iraq, it diversified and sold as well to other clients in the Middle East and Africa. Cardoen also maintained very effective ties to the Chilean military establishment. The Chilean industry specialized in the lower end of the market (light weapons, ammunition, explosives) rather than in more sophisticated weapons systems and was the most efficient of the three countries' industries.¹⁷

Export Controls: The industries in the three countries currently operate under vastly different export control systems. Argentina has an extensive system of export controls and is the only country in the region which is a member of both the MTCR and the Australia Group. The controls were put in place over the course of several years during the early 1990s with the cooperation of the United States.

Brazil has a nascent export control system which it put into place just prior to admission to the MTCR in November 1995. Brazil was not required to show any track

¹⁶ See Franko-Jones, pp. 165-189; Maldifassi and Abetti, pp. 30-57; and Gamaliel Perruci, Jr., "The North-South Security Dialogue in Brazil's Technology Policy," *Armed Forces & Society*, 21 #3 (Spring 1995): p. 378.

¹⁷ Maldifassi and Abetti, pp. 228-230.

record of enforcement of its controls prior to acceptance into the MTCR and it remains to be seen whether the controls will be effective.

Chile is not a member of either the MTCR or the Australia Group and has not implemented comprehensive export controls. Given the status of civil-military relations in Chile and the relationship between the private arms industry and the military, there is reason for skepticism that Chile could enforce effectively such controls. Reports of arms shipments from Chile to Croatia during the period of the UN arms embargo on the former Yugoslavia also cast doubt on Chile's ability to enforce controls. Interviews with several U.S. government officials reveal considerable uncertainty that Chile would, if pressed, be able to enforce controls on exports by influential firms such as Industrias Cardoen.¹⁸

FUTURE DIRECTIONS FOR U.S. POLICY

The political and economic changes underway in the Southern Cone over the past decade offer an excellent opportunity for the United States to cement these countries into a relationship in which they are reliable partners of the United States in combating proliferation and assisting in international peacekeeping and humanitarian operations. The timing also appears more propitious than ever before for these countries to establish inter-relationships among themselves that would bring increased transparency in their defense postures and would continue to reduce the rationale for their acquiring offensive warfare capabilities.

¹⁸ Interviews with U.S. Department of State officials, 1 December and 4 December 1995; interview with U.S. Department of Defense official 7 February 1996; and interview with U.S. Arms Control and Disarmament Agency official 9 February 1996.

The starting point for this new era would be a shared commitment to democracy on the part of the civilian-led governments of the region. These governments now share a number of common interests: strengthening civilian authority over military institutions and entrenched civilian bureaucracies which had been heavily influenced by the military; strengthening civilian expertise on security issues, so that the executive and legislative branches can exert effective oversight; converting their defense industries from proliferation activities to responsible and economically-viable entities; and restructuring their militaries so that they are less expensive, less top-heavy, and more effective in carrying out their post-Cold War missions. These governments also share an interest in increasing economic integration and stability in the region even as Chile continues to look to the United States for incorporation into NAFTA. Each country is setting its own pace in these tasks, each government has expertise which it could share with the others and at the same time could benefit from sharing in the experience of its neighbors. The United States in particular, and the rest of the international community as well, could assist in this transformation.

Nonproliferation: As a first step, the United States should commit to helping to bring these countries into all of the international nonproliferation regimes as quickly as possible. Such a strategy would be in keeping with the basic tenets of effective export controls, namely that they be as fully multilateral and narrowly targeted as possible. This strategy also would help address a common domestic criticism of U.S. export control

policy, namely that it is too unilateral and thus disadvantageous to U.S. exporters. The international regimes include the MTCR, the Australia Group, the CWC, and the Wassenaar Arrangement (the successor to COCOM).¹⁹

As Argentina has shown, membership in these regimes can be mutually reinforcing as customs officials and others gain expertise in enforcing export controls. Argentina initially was excluded from Wassenaar because it had not adopted the old, expiring COCOM list of dual-use exports and instead was adopting the new Wassenaar lists. Argentina subsequently was assured that it could participate in the first Wassenaar plenary meeting in April 1996, but this initial snub of a willing partner does little to advance U.S. security interests in the region.²⁰

For the United States, helping to get these countries into the international nonproliferation regimes entails more than supporting their eventual bids for membership. Chile in particular, but also Brazil, could benefit from U.S. expertise and experience in setting up export controls. The United States provided considerable advice to Argentina as that country set up its control system prior to admittance into the MTCR. When Brazil applied for MTCR membership, however, the United States was content to let Brazil go through the formalities of establishing export controls without providing assistance and without waiting to see if the controls would be effective.

¹⁹ See Panel on the Future Design and Implementation of U.S. National Security Export Controls, Finding Common Ground: U.S. Export Controls in a Changed Global Environment (Washington, D.C.: National Academy Press, 1991), p. 59; and Janne E. Nolan, Trappings of Power: Ballistic Missiles in the Third World, (Washington, D.C.: The Brookings Institution, 1991), pp. 138-144.

²⁰ Interview with U.S. Arms Control and Disarmament Agency official 14 March 1996.

Chile would benefit from an even more proactive approach on the part of the United States, given Chile's lack of an export control structure and its relatively independent military-industrial sector. Argentina also is well positioned to provide Chile with the benefit of its experience, perhaps in the context of the bilateral security cooperation consultations agreed to in Santiago last November. Participating in the nonproliferation regimes would facilitate Chile's long-term access to international technology, an important advantage for Chile's relatively open economy.

It is in the interest of the United States and the other members of these international regimes to provide assistance to potential new members such as Chile as these regimes are only as effective as their weakest link. Evidence uncovered following the Persian Gulf war revealed this only too well, wherein fifty companies, including six in the United States, allegedly sold chemical weapons precursors and technology to Iraq.²¹

The United States also should look for ways to provide positive reinforcement to these countries as they participate in the nonproliferation regimes. Such a strategy has a distinguished history in U.S. foreign policy, dating back to President Eisenhower's Atoms for Peace Plan in 1953, and was a key element in the Nuclear Non-Proliferation Treaty. There are a number of potential inducements, none of which would be particularly costly. For example, Secretary of State Warren Christopher's trip to the region in March 1996

²¹ Eisenstein, Maurice, Countering the Proliferation of Chemical Weapons, (Santa Monica: The RAND Corporation, 1993), p. 13.

provided the impetus finally to break free from the U.S. government bureaucracy a U.S.-Argentine agreement on nuclear cooperation which had been held up for years over technical questions on Argentine nuclear exports in the previous decade. Such cooperation serves U.S. interests in strengthening civilian government, improving nuclear safety, and promoting U.S. exports.²²

Access to Technology: As the Southern Cone countries become responsible partners in nonproliferation, the United States should look for opportunities to facilitate their access to dual use technology. This may be especially important in the area of chemical and biological technologies, which may be crucial to developing countries in their efforts to improve their health, environment, and standards of living. Facilitating this access could have the additional benefit of easing the political pain to these countries of revamping their patent laws. The United States has been pushing these countries to stiffen their patent laws for many years now, with varying degrees of success.²³

Similar incentives should be sought in the space launch vehicle (SLV) area now that Brazil has been accepted into the MTCR. For example, the United States could look for ways to renew cooperation on sounding rockets, using Brazil's Alcantara launch site. Brazil's SLV program could become part of an MTCR-generated positive list of SLV and satellite programs which are committed to peaceful uses and thus certified as acceptable

²² Interview with U.S. Department of State official, 14 March 1996.

²³ See U.S. Congress, Office of Technology Assessment, Proliferation of Weapons of Mass Destruction: Assessing the Risks, (Washington, D.C.: U.S. Government Printing Office, 1993), p. 102; and U.S. Congress, Office of Technology Assessment, Technologies Underlying Weapons of Mass Destruction, (Washington, D.C.: U.S. Government Printing Office, 1993), pp. 16, 98-99.

recipients of missile-related technology. Such a step would be the polar opposite to putting Brazil on the U.S. EPCI list in 1991, which signaled to U.S. exporters that Brazil's SLV program was particularly suspicious as a destination for U.S. technology. The United States also should look for ways to encourage Brazil to permit participation by Argentina in its SLV program, both as a way to gainfully employ Argentine personnel previously involved in the Condor II program and as a confidence-building measure to increase the transparency of Brazil's SLV program. These types of incentives should be especially effective in a region such as the Southern Cone, where previous proliferation activities were due more to an economic search for export markets than to military tensions.²⁴

Arms Transfer Policy: A similarly proactive approach is called for in constructing an arms transfer policy toward the region. U.S. policy should be guided by the strategic threats which these countries are likely to face in coming years and by how U.S. interests would best be served by the capabilities which the militaries of the region acquire over the next decade. Viewed from this perspective, the long-standing question of whether to offer advanced fighter aircraft (i.e., F-16s) is relatively simple to answer. The strategic threats which these countries face are primarily internal and economic. The military missions which these countries could carry out which are of most benefit to the United States are international peacekeeping and humanitarian operations, where the

²⁴ See Peter van Ham, Managing non-proliferation regimes in the 1990s: power, politics, and policies, (New York: Council on Foreign Relations, 1994), pp. 78-81; Finding Common Ground, p. 185; and Nolan, pp. 154-157.

United States is hard pressed for political and financial reasons to respond to all of the demands of the international community.

Following this line of reasoning, the United States should not be offering F-16s to the region (the prospect of F-16s from these countries flying in joint missions with the United States in an operation such as Bosnia is, I would say, remote). There also is scant evidence of demand in the region for such aircraft or of the ability to pay for their delivery and maintenance. Rather the United States should be engaged in a range of diplomatic and military assistance initiatives which would fit well under the conventional arms transfer policy and other current U.S. official policy.

Some Possible Initiatives:

- engaging other suppliers of comparable fighter aircraft to discourage their offering such aircraft to the region. The United States has paid lip service only to this area over the past several years.
- engaging the Southern Cone countries in bilateral dialogues on long-term planning and force modernization. Such talks could focus on post-Cold War capabilities such as peacekeeping and humanitarian assistance, but also include areas such as the protection of fisheries and other natural resources. The United States then should respond aggressively to be the supplier of choice for these countries in meeting their equipment requirements as they are identified.

- encouraging cooperative agreements between the U.S. defense industry and their regional counterparts, such as the Lockheed Aircraft Argentina S.A. joint venture recently set up between Lockheed Martin and FMA of Argentina. The joint venture seeks to build on the upgrades of Argentina's A-4s and expand into upgrades and maintenance of civilian and military aircraft. Other opportunities may arise in the impending privatization of Brazil's Embraer, or in production of equipment such as all terrain vehicles and surveillance aircraft which are well suited for peacekeeping and other humanitarian operations. U.S. firms need not be involved in all cases; production agreements between firms in the region are also a possibility.²⁵
- beefing up the expanded IMET courses for combined military and civilian officials, especially those which include civilians from both the executive and legislative branches. Such courses can assist in preparing these countries for civilian oversight of the military and also in redressing the relative imbalance between the executive and legislative branches of government.
- using IMET, Excess Defense Articles (EDA) transfers, and other assistance to support Argentina's International Peacekeeping Academy. Argentina seeks to turn the academy into an institution to train peacekeepers from throughout the region, a goal supportive of U.S. interests in the region and worldwide.
- working with the OAS to expand bilateral and multilateral security dialogues on CSBMs. The development of CSBMs could be particularly useful in maintaining

²⁵ See Finnegan, Philip, "Lockheed Aircraft Seeks Partners for S. America Push," Defense News, March 18-24, 1996, p. 24; and "Embraer Stock Sale Set for May," Aviation Week & Space Technology, March 28, 1996, p. 71.

stability in the face of recent acquisition in the region of force projection capabilities such as air-to-air refueling.

The United States vision for the Southern Cone region in the year 2005 should be one of effective democracies whose economies are integrated with each other and with that of the United States. The goal agreed to at the Summit of the Americas, by all nations of the hemisphere except Cuba, was the creation of a hemispheric free trade area by 2005. These democracies would be working with the United States to stem the proliferation of weapons of mass destruction to the rogue states of the international community. Supporting these democratic institutions would be restructured militaries which were capable of responding to humanitarian emergencies at home and of participating in humanitarian and peacekeeping operations abroad. The United States can assist in this transition at a modest cost, while reaping a substantial benefit in markets gained and in new military capabilities to complement our own.

GLOSSARY

Argentine-Brazilian Accounting and Control Commission (ABACC): Bilateral commission to monitor nuclear safeguards. Party with Argentina and Brazil in quadripartite safeguards agreement with the IAEA.

Australia Group: Voluntary group of supplier nations begun in 1984 to control chemicals and dual-use items for making chemical weapons. Argentina became a member in 1993.

Condor II missile program: Medium range ballistic missile program undertaken by Argentina, Egypt, and Iraq in the 1980s and early 1990s.

Enhanced Proliferation Control Initiative (EPCI): U.S. "catch-all" program begun in 1991 to require U.S. exporters to examine carefully potential exports to countries or missile programs of concern to the United States.

International Atomic Energy Agency (IAEA): UN-affiliated organization founded in 1957 to promote peaceful uses of nuclear energy and oversee use of nuclear materials.

International Air and Space Show (FIDAE): Chile's biennial air and space exhibition, the largest in South America.

Missile Technology Control Regime (MTCR): Established in 1987 to control missiles and components of missiles capable of delivering nuclear warheads. Argentina became a member in 1993, Brazil in 1995.

Nuclear Non-Proliferation Treaty (NPT): Divides the world into nuclear and non-nuclear states. Entered into force in 1970, and extended indefinitely in 1995. 175 member parties as of March 15, 1995.

Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco): Treaty parties pledge not to acquire, manufacture, test, use or station nuclear devices on their territory. Brought into force in Argentina in January 1994 and in Brazil in May 1994.

Wassenaar Arrangement: Export control regime which is to be the successor to COCOM. Established by 28 countries in December 1995.

BIBLIOGRAPHY

- Bailey, Kathleen C. Doomsday Weapons in the Hands of Many: The Arms Control Challenge of the '90s. Chicago: University of Illinois Press, 1991.
- Barnaby, Frank. How Nuclear Weapons Spread. New York: Routledge, 1993.
- Blackwill, Robert D. and Carnesale, Albert. New Nuclear Nations: Consequences for U.S. Policy. New York: Council on Foreign Relations, 1993.
- Burrows, William E. and Windrem, Robert. Critical Mass: the Dangerous Race for Superweapons in a Fragmenting World. New York: Simon & Schuster, 1994.
- Committee on Science, Engineering, and Public Policy. Finding Common Ground: U.S. Export Controls in a Changed Global Environment. Washington, D.C.: National Academy Press, 1991.
- Eisenstein, Maurice. Countering the proliferation of chemical weapons. Santa Monica: The RAND Corporation, 1993.
- "Embraer Stock Sale Set for May." Aviation Week & Space Technology, March 28, 1994, p. 71.
- Finnegan, Philip. "Lockheed Aircraft Seeks Partners for S. America Push." Defense News, March 18-24, 1996, p. 24.
- Fischer, David. Stopping the spread of nuclear weapons: the past and the prospects. New York: Routledge, 1992.
- Franko-Jones, Patrice. The Brazilian Defense Industry. Boulder: Westview Press, 1992.
- Nelan, Bruce W. "Two Tales of Skulduggery." Time, October 22, 1990, pp. 44-45.
- Nolan, Janne E. Trappings of Power: Ballistic Missiles in the Third World. Washington: The Brookings Institution, 1991.
- Organization of American States. Declaration of Santiago on Confidence- and Security-Building Measures. Santiago, Chile: n.p., 27 November 1995.
- Perry, William. Santiago, Chile. Press conference, 11 March 1996.

- Reiss, Mitchell and Litwak, Robert S. eds. Nuclear Proliferation After the Cold War. Baltimore: The Johns Hopkins University Press, 1994.
- Schmidt, Rachel. U.S. Export Control Policy and the Missile Technology Control Regime. Santa Monica: The RAND Corporation, 1990.
- Snyder, Jed C. and Wells, Jr., Samuel F. eds. Limiting Nuclear Proliferation. Cambridge: Harper & Row, 1985.
- United States Arms Control and Disarmament Agency. Fact Sheet on the Organization of America States Conference on Confidence- and Security-Building Measures (CSBMs). Washington, D.C.: ACDA, 15 December 1995.
- United States Congress, Office of Technology Assessment. Proliferation of Weapons of Mass Destruction: Assessing the Risks. Washington, D.C.: Government Printing Office, 1993.
- United States Congress, Office of Technology Assessment. Technologies Underlying Weapons of Mass Destruction. Washington, D.C.: Government Printing Office, 1993.
- United States Department of Defense. Defense Ministerial of the Americas. Washington, D.C.: Government Printing Office, 1995.
- United States Department of Defense. "South America Advanced Aircraft Sales Policy (draft)." Washington, D.C., 1996.
- United States Department of Defense. United States Security Strategy for the Americas. Washington, D.C.: Government Printing Office, September 1995.
- "U.S. Firms Find Little Room in Latin American Market." Defense News, 18-24 March 1996, pp. 1, 27.
- The White House. Fact Sheet on U.S. Conventional Arms Transfer Policy. Washington, D.C.: 17 February 1995.
- The White House. Fact Sheet on Criteria for Decision-making on U.S. Arms Exports. Washington, D.C.: 17 February 1995.